

# Ali Zia

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## SKILLS

**Languages:** Python, Java, JavaScript, C/C++, R, Matlab, HTML/CSS

**Frameworks/Libraries:** React, Node.js, Express, Pandas, NumPy, Scikit-learn, FastAPI, Socket.IO

**Tools:** Git, Bash, Linux, MySQL, Firebase, JUnit, PlantUML, VS code, IntelliJ, PyCharm, Jupyter Notebook, Excel

## EDUCATION

**McMaster University** | Bachelor of Software Engineering Co-Op (GPA: 3.8/4.0) **2021 – 2025 (Expected)**

- **Relevant Courses:** Object-Oriented Programming, Data Structures & Algorithms, Software Development

## PROJECTS

### Terrain Generation

- Worked in a team of 3 to develop a **Java** application that generates meshes based on user-defined parameters
- Expanded the functionality of the application to enrich the generated meshes into island landscapes
- Individually Integrated a custom graph library to construct a star network to connect cities with roads
- Implemented comprehensive testing coverage for **60%** of the codebase using **JUnit**

### Premier League (Soccer) Win Predictor

- Used **Python** and **Pandas** to process and feature engineer hundreds of Premier League games data
- Developed a classification model with **SciKit-Learn** to predict the winner of any future games
- Used training sets to train the model, achieving **80%** predictive accuracy with optimized hyper-parameter tuning
- Deployed the model using **FastAPI** for a user-friendly experience

### Recycling System

- Researched and designed the logic behind automated recycling systems to remove human error
- Programmed the logic with **Python** and used **Quanser** to run virtual simulations to ensure accurate functionality
- Used **unit testing** methodologies to track changes and ensure functionality of the simulation
- Executed the project by controlling a **QBot** with a **Raspberry Pi** and achieved **99%** accuracy in sorting containers

## WORK EXPERIENCE

### Event Coordinator

**September 2019 – January 2023**

*Sheridan Community Services*

*Mississauga, ON*

- Orchestrated planning and execution of multiple large-scale events, achieving a **95%** attendee satisfaction rate
- Successfully managed event logistics accommodating **100** attendees and ensuring a **98%** on-time start rate
- Increased event attendance by **25%** through effective promotion and marketing strategies

### Repair Technician

**May 2022 – August 2022**

*Rama Centre*

*Mississauga, ON*

- Managed **10+** repairs daily and achieved a **100%** satisfaction rate in repair efficiency and on-time completion
- Implemented rigorous diagnostic procedures, resulting in a **20%** reduction in device rework
- Meticulously documented repair and troubleshooting procedures, increasing future repair efficiency by **38%**

## EXTRA-CURRICULARS

### RBC Future Launch Contestant - Innovation Challenge Winner

**May 2023**

- Worked in a team of 4 to develop and deliver a proposal for an RBC workshop, winning amongst 12 teams

### Software Design Team Lead - DeltaHack 9

**January 2023**

- Led a team of 3 to develop a full-stack application with **React** and **Firebase**, allowing users to chat online